

## CLAIMS:

1. A method of measuring adhesion strength between first (1) and second (2) layers of material in a stack of two or more layers, the first and second layers (1,2) being in contact at an interface (3), the method comprising steps of:
  - 5 applying a plurality of laser shocks directly to a free surface of said stack of layers by causing a plurality of laser pulses of respective different wavelength and/or energy to impact said free surface,
  - 10 detecting cracking of the interface (3) on application of one of said plurality of laser pulses;
  - determining the wavelength and energy of the applied laser pulse causing cracking of the interface (3); and
  - calculating a value for adhesion strength of the first and second layers (1,2) based upon the determined wavelength and energy values.
- 15 2. The adhesion-strength measurement method of Claim 1, wherein the laser shock application step comprises applying said plurality of laser pulses at the same location on the free surface of said stack until cracking of the interface is detected .
- 20 3. The adhesion-strength measurement method of any previous claim, wherein the detecting step comprises detecting cracking using an acoustic sensor.
4. The adhesion-strength measurement method of any previous claim, wherein said first and second layers are layers of a semiconductor wafer product.
- 25 5. The adhesion-strength measurement method of any previous claim, wherein said first layer (1) is at one end of the said stack and a surface of said first layer (1) constitutes the free surface of the stack on which the laser pulses impact.